UNITED STATES PATENT AND TRADEMARK OFFICE

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10/549,423	09/15/2005	Hidekazu Suzuki	MAT-8749US	9468

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on _05 May 2010_.
2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) _1,4-6,9,12-14 and 17-19_ is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) _1,4-6,9,12-14 and 17-19_ is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a) ☐ All   b) ☐ Some * c) ☐ None of:
        1. ☐ Certified copies of the priority documents have been received.
        2. ☐ Certified copies of the priority documents have been received in Application No. _____.
        3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1.   Claims 1, 3-6, 9, 11-14 and 17-19 are presented for examination.

2.   Claims 1, 4-6, 9, 12-14 and 17-19 are amended

3.   Claims 3 and 11 are cancelled.

Continued Examination Under 37 CFR 1.114

4.   A request for continued examination under 37 CFR 1.114, including the fee set

forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this

application is eligible for continued examination under 37 CFR 1.114, and the fee set

forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action

has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 5 May

2010 has been entered.

Claim Objections

5.   Claims 9 and 12-14 are objected to because of the following informalities: Claim

9 recites "a network for sucking up revocation information". Examiner is unsure as to

how a network, which is an amalgamation of interconnected computing devices, is

capable of "sucking" which implies some sort of suction. Examiner believes that the

phrasing is the result of a machine translation from Japanese to English and that the

claim language needs to be reviewed by a competent human translator to better

conform to proper English. Appropriate correction is required. Claims 12-14 are

objected to as depending from claim 9 and failing to correct the deficiencies thereof.

Claim Rejections - 35 USC § 112

6.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly
> claiming the subject matter which the applicant regards as his invention.

7.   Claims 9, 12-14 and 18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

8.   Claim elements "an integrating means", "a multiplexing means" and "a transmitting means" of claim 9 and ""a means for executing mutual authentication", "an outputting means" and "a receiving means" of claim 18 are means (or step) plus function limitations that invokes 35 U.S.C. 112, sixth paragraph. However, the written description fails to disclose the corresponding structure, material, or acts for the claimed function. The various means are described in the specification in terms of block components of a system and are not sufficient to disclose an actual structure performing the means. Claims 12-14 are rejected as depending from claim 9 and failing to correct the deficiencies thereof.

Applicant is required to:

(a) Amend the claim so that the claim limitation will no longer be a means (or step) plus function limitation under 35 U.S.C. 112, sixth paragraph; or

(b) Amend the written description of the specification such that it expressly recites what structure, material, or acts perform the claimed function without introducing any new matter (35 U.S.C. 132(a)).

If applicant is of the opinion that the written description of the specification already implicitly or inherently discloses the corresponding structure, material, or acts so

that one of ordinary skill in the art would recognize what structure, material, or acts

perform the claimed function, applicant is required to clarify the record by either:

(a) Amending the written description of the specification such that it expressly

recites the corresponding structure, material, or acts for performing the claimed function

and clearly links or associates the structure, material, or acts to the claimed function,

without introducing any new matter (35 U.S.C. 132(a)); or

(b) Stating on the record what the corresponding structure, material, or acts,

which are implicitly or inherently set forth in the written description of the specification,

perform the claimed function. For more information, see 37 CFR 1.75(d) and MPEP §§

608.01(o) and 2181.

Claim Rejections - 35 USC § 103

9.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

10.   The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

1.   Determining the scope and contents of the prior art.
2.   Ascertaining the differences between the prior art and the claims at issue.
3.   Resolving the level of ordinary skill in the pertinent art.
4.   Considering objective evidence present in the application indicating
        obviousness or nonobviousness.

11.   Claims 1, 5, 9 and 11-13 and 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over European Patent Application Publication No. EP0930556 by *Komuro et al.* in view of U.S. Patent No. 7,225,164 to *Candelore et al.*

As to **claim 1**, *Komuro* discloses a revocation information transmission method used in a system including a plurality of contents transmitting devices for transmitting contents, and a plurality of contents receiving devices for receiving contents on a network (Komura: Fig 11, Page 8; Sec 71 and Page 11-12, Sec 87-94), the method comprising the steps of:

executing mutual authentication between the plurality of contents transmitting devices and the plurality of contents receiving devices, respectively, each of the contents transmitting devices reading authentication information of a respective one of the contents receiving devices (Komura: Fig 11, Page 8; sec 71 and Page 11-12, Sec 87-94);

individually uploading revocation information including key information of mutual authentication failure from each of the contents transmitting devices or each of the contents receiving devices in case of mutual authentication failure to a revocation integrator (Komura: Fig 11, Page 8; sec 71 and Page 11-12, Sec 87-94 and Page 13, Sec 110);

integrating, with the revocation integrator, the revocation information from each of the contents transmitting device with the revocation information from each of the contents transmitting devices, as an integrated revocation list representing a common list of revocations for the contents receiving devices and the contents transmitting

devices on the network (Komura: Fig 11, Page 8; sec 71 and Page 11-12, Sec 87-94

and Page 13, Sec 110; broadcasting reception apparatus acquires list of device ids of

illegal apparatuses from the connected device_ID table of individual devices and

distributes the list to other connected devices); and

transmitting the stream to the contents transmitting devices on the network

(*Komuro*: Fig 11; Page 11, Sec 88-90).

Komura does not expressly packetizing the integrated revocation list and

multiplexing the packetized revocation list into a stream or

wherein the stream is an MPRG transport stream, and the integrated revocation

list is transmitted by using a data structure of a section of the MPEG transport stream.

Candelore discloses packetizing the integrated revocation information and

multiplexing the packetized revocation information into a stream (*Candelore*: Col 6 ,

Line 42- Col 7, Line10; CRL transported in an MPEG PSI data structure) and

wherein the stream is an MPRG transport stream, and the integrated revocation

list is transmitted by using a data structure of a section of the MPEG transport stream

(*Candelore*: Col 6 , Line 42- Col 7, Line10; CRL transported in an MPEG PSI data

structure).

Komuro and *Candelore* are analogous art because they are from the common

area of data transmission and protection.

At the time of invention, it would have been obvious to a person of ordinary skill

in the art to transport revocation information on an MPEG transport stream. The

rationale would have been to allow the system to work with an MPEG decoder

(*Candelore*: Col 3, Lines 21-33).

As to **claim 5**, the modified *Komura/Candelore* reference further discloses

wherein the stream is an MPEG transport stream, and the integrated revocation list is

transmitted by using a payload of a transport packet of the MPEG transport stream

(*Candelore*: Col 6 , Line 42- Col 7, Line10; CRL transported in an MPEG PSI data

structure).

As to **claim 9**, the modified *Komura/Candelore* reference discloses a revocation

information transmitting apparatus comprising:

a plurality of contents transmitting devices for transmitting contents (*Komura*: Fig

11, Page 8; sec 71 and Page 11-12, Sec 87-94);

a plurality of contents receiving devices for receiving contents, which are

respectively connected to the plurality of contents transmitting devices; (*Komura*: Fig 11,

Page 8; sec 71 and Page 11-12, Sec 87-94);

a first digital interface for outputting a compressed/expanded digital signal from

the contents transmitting device to the contents receiving device (*Komuro*: Fig 11; Page

8, Sec 63, 71 and Page 11-12, Sec 87-94);

a second digital interface for transmitting and receiving authentication information

of the contents receiving device between the contents transmitting device and the

contents receiving device (*Komuro*: Fig 11; Page 8, Sec 63, 71 and Page 11-12, Sec

87-94);

a network for sucking up revocation information from the plurality of contents

transmitting devices or the plurality of contents receiving devices in case of mutual

authentication failure between the contents transmitting devices and contents receiving

devices (*Komuro*: Fig 11; Page 8, Sec 63, 71 and Page 11-12, Sec 87-94);

an integrating means for integrating the revocation information <u>as an integrated</u>

<u>revocation list</u> from the contents transmitting devices or the contents receiving devices,

which is connected to the network, the integrated revocation list representing a common

list of revocations for the contents receiving devices and the contents transmitting

devices on the network (*Komuro*: Fig 11; Page 8, Sec 63, 71 and Page 11-12, Sec 87-

94 and Page 13, Sec 110);

a multiplexing means for packetizing the integrated revocation <u>list</u> integrated by

the integrating means and multiplexing it into a stream (*Candelore*: Col 6 , Line 42- Col

7, Line10); and

a transmitting means for transmitting the stream (*Komuro*: Fig 11; Page 8, Sec

63, 71 and Page 11-12, Sec 87-94),

wherein the stream is an MPEG transport stream, and the integrated revocation

list is transmitted by using a data structure of the MPEG transport stream (*Candelore*:

Col 6 , Line 42- Col 7, and Line10).

As to **claim 13**, the modified *Komura/Candelore* reference further discloses

wherein the stream is an MPEG transport stream, and the integrated revocation

information is transmitted by using a payload of a transport packet of the MPEG

transport stream (*Candelore*: Col 6 , Line 42- Col 7, Line10; CRL transported in an

MPEG PSI data structure).

As to **claim 17**, the modified *Komura/Candelore* reference discloses a revocation

information transmission method comprising the steps of:

executing mutual authentication between a contents transmitting equipment and

a contents receiving equipment (*Komuro*: Fig 11; Page 11, Sec 88-90), executed by the

contents transmitting equipment which reads authentication information of the contents

receiving equipment through a first digital interface (*Komuro*: Fig 11; Page 11, Sec 88-

90); and

outputting revocation information including key information of mutual

authentication failure from the contents transmitting equipment or the contents receiving

equipment in case of mutual authentication failure (*Komuro*: Fig 11; Page 11, Sec 88-

90),

wherein the revocation information transmission method is used in a system

comprising a contents transmitting equipment for transmitting contents, a contents

receiving equipment for receiving contents, a second digital interface for outputting

compressed/expanded digital signal from the contents transmitting equipment to the

contents receiving equipment, and the first digital interface connecting means for

transmitting and receiving data between and connecting the contents transmitting

equipment to the contents receiving equipment (*Komuro*: Fig 11; Page 11-12, Sec 87-

94) and a revocation integrator integrating the revocation information, as an integrated

revocation list from the contents receiving devices, which is connected to the network,

the integrated revocation list representing a common list of revocations for the contents

receiving devices and the contents transmitting devices on the network (*Komuro*: Page

13, Sec 110; broadcasting reception apparatus acquires list of device ids of illegal

apparatuses from the connected device_ID table of individual devices and distributes

the list to other connected devices),

wherein the integrated revocation list is transmitted from the revocation integrator

to the contents transmitting devices using a data structure of an MPEG transport stream

(*Candelore*: Col 6 , Line 42- Col 7, Line10; CRL transported in an MPEG PSI data

structure).

As to **claim 18**, the modified *Komura/Candelore* reference discloses a revocation

information managing apparatus comprising:

a plurality of contents transmitting equipments, connected to a network, for

transmitting contents (*Komuro*: Fig 11; Page 8, Sec 71 and Page 11-12, Sec 87-94);

a plurality of contents receiving equipments, connected to a network, for

receiving contents, which are respectively connected to the plurality of contents

transmitting equipments (*Komuro*: Fig 11; Page 8, Sec 71 and Page 11-12, Sec 87-94);

a first digital interface for outputting compressed/expanded digital signal from the

contents transmitting equipment to the contents receiving equipment (*Komuro*: Fig 11;

Page 8, Sec 63 and Page 11-12, Sec 87-94);

a second digital interface connecting means for transmitting and receiving

authentication information of the contents receiving apparatus between connecting the

contents transmitting equipment to the contents receiving equipment (*Komuro*: Fig 11;

Page 11-12, Sec 87-94);

a means for executing mutual authentication between the contents transmitting

equipment and the contents receiving equipment (*Komuro*: Fig 11; Page 11-12, Sec

87-94); and

an outputting means for outputting revocation information including key

information of mutual authentication failure from the contents transmitting equipment or

the contents receiving equipment in case of failure in the mutual authentication

(*Komuro*: Fig 11; Page 11-12, Sec 87-94);

a receiving means for receiving an integrated revocation list from a revocation

integrator representing a common list of revocations for the contents receiving

equipment and the contents transmitting equipment on the network (*Komuro*: Page 13,

Sec 110; broadcasting reception apparatus acquires list of device ids of illegal

apparatuses from the connected device_ID table of individual devices and distributes

the list to other connected devices),

wherein the integrated revocation list is transmitted from the revocation integrator

to the receiving means using a data structure of a section of an MPEG transport stream

(*Candelore*: Col 6 , Line 42- Col 7, Line10; CRL transported in an MPEG PSI data

structure).

As to **claim 19**, the modified *Komura/Candelore* reference further discloses

wherein:

one of the contents transmitting devices, as a first contents transmitting device

includes a first digital interface for outputting a compressed/expanded digital signal to a

respective one of the contents receiving device, as a first contents receiving device and

a second digital interface for executing the mutual authentication between the first

contents transmitting device and the first contents receiving device (*Komuro*: Fig 11;

Page 11-12, Sec 87-94), the method further comprising:

receiving the stream by the first contents transmitting device (*Komuro*: Fig 11;

Page 8, Sec 63-65); and

selectively outputting, via the first digital interface of the first contents transmitting

device, the compressed/expanded digital signal to the first contents receiving device

responsive to the integrated revocation list received in the stream (*Komuro*: Fig 11;

Page 8, Sec 63-65).

12.   Claims 4 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable

over European Patent Application Publication No. EP0930556 by *Komuro et al*. in

view of U.S. Patent No. 7,225,164 to *Candelore et al*. further in view of U.S. Patent

Application Publication No. 2004/0054892 by *Ji et al*.

As to **claims 4 and 12**, the modified *Komuro/Candelore* reference discloses all

recited elements of claims 1 and 9 from which claims 4 and 12 depend. The modified

reference further discloses wherein the stream is an MPEG transport stream

(*Candelore*: Col 6 , Line 42- Col 7, Line10; CRL transported in an MPEG PSI data

structure),

The modified reference does not expressly disclose the integrated revocation list is transmitted by using a data structure of a PES packet of the MPEG transport stream.

Ji discloses the integrated revocation list is transmitted by using a data structure of a PES packet of the MPEG transport stream (*Ji:* Page 2, Sec 27, 35).

The modified reference and *Ji* are analogous art because they are from the common area of data transmission and protection.

At the time of invention, it would have been obvious to a person of ordinary skill in the art to transmit control information in a PES packet of the MPEG transport stream. The rationale would have been to link the control data to the playback information (Ji: Page 2, Sec 34).

13.   Claims 6 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over European Patent Application Publication No. EP0930556 by *Komuro et al.* in view of U.S. Patent No. 7,225,164 to *Candelore et al.* further in view of U.S. Patent No. 5,692,124 by *Holden et al.*

As to **claims 6 and 14**, the modified *Komuro/Candelore* reference discloses all recited elements of claims 1 and 9 from which claims 6 and 14 depend.

The modified reference does not expressly disclose wherein the integrated revocation list is transmitted by using an IP packet.

Holden discloses wherein the integrated revocation list is transmitted by using an IP packet (*Holden*: Col 18, Lines 30-38).

The modified reference and *Holden* are analogous art because they are from the common area of data transmission and protection.

At the time of invention, it would have been obvious to a person of ordinary skill in the art to transmit revocation data in an IP packet. The rationale would have been to allow for transfer over a TCP/IP network.

Response to Arguments

14.   Applicant's arguments with respect to claim 1 concerning the *IEC* reference have been considered but are moot in view of the new ground(s) of rejection.

15.   Applicant argues that *Komuro* fails to disclose "individually uploading revocation information...from each of the contents transmitting devices or each of the contents receiving devices in case of mutual authentication failure to a revocation integrator" and integrating, with the revocation integrator, the revocation information from each of the contents transmitting devices...on the network". Examiner notes that *Komuro* discloses, at Page 13, Sec 110, that in the case of mutual authentication failure, the failing device is added to the connected device_ID table of the authorized device.   This information is then shared with the broadcast reception apparatus, which then includes this new information concerning unauthorized devices with other connected devices on the network. In this way the broadcast reception apparatus collects, integrates and delivers integrated revocation information to the network

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael S. McNally whose telephone number is (571)270-1599. The examiner can normally be reached on Monday through Friday 9:00 - 5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Nasser Moazzami can be reached on (571)272-4195. The fax phone

number for the organization where this application or proceeding is assigned is 571-

273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Nasser Moazzami/
Supervisory Patent Examiner, Art Unit 2436

/M. S. M./
Examiner, Art Unit 2436
18 May 2010